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# **Plantwide Applicability Limitations (PALs)**

# Plantwide Applicability Limitations

- An alternative approach for determining major NSR applicability.
- The final rules address only “actuals PALs”. We will be proposing provisions for “allowables PALs” at a later date.
- A PAL is an annual (facility-wide) emission limitation (12-month total, rolled monthly) under which the facility can make any changes without triggering NSR review for that pollutant.
  - ▢ Pollutant-specific
  - ▢ 10-year term.
- A PAL for VOC or NO<sub>x</sub> shall not be allowed in an extreme ozone nonattainment area.

# Establishing a PAL

- At the time of setting a PAL, classify all emissions units as new or existing.
- Determine **baseline actual emissions** of all units:
  - For **new units**, add the **PTE** of the units
  - For existing units , pick a consecutive 24-month period (baseline period) in the preceding 10 years.
    - For **existing units constructed prior to and during the baseline period**, add **average emissions** adjusted to reflect current applicable requirements
    - For **existing units that began construction after the baseline period**, add the **PTE** of the units

# Establishing a PAL (Cont..d)

- Add the pollutant-specific significant emissions rate to the baseline actual emissions for the PAL pollutant;
- Subtract any emissions from emissions units that operated during the 24-month period and have since been permanently shut down; and
- Establish a step-down PAL if there are any requirements that have an effective date during the term of the PAL.

# Reopening PAL permits

- Reviewing Authority shall reopen the PAL permit to:
  - Correct typographical or calculation errors made in setting the PAL.
  - Reduce the PAL to create emissions reductions for offset purposes.
  - Revise the PAL to reflect an increase in the PAL.

# Reopening PAL permits (Cont..d)

- Reviewing Authority **may reopen** the PAL permit to:
    - Reduce the PAL **to reflect newly applicable Federal requirements** with compliance dates after the PAL effective date. (However, PAL must be adjusted at TV or PAL permit renewal, whichever occurs first.)
    - Reduce the PAL **consistent with any other requirement** that the State may impose under its SIP.
    - Reduce the PAL if it determines that a reduction is necessary to **avoid causing or contributing to a NAAQS or PSD increment violation**
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# Increasing a PAL

- Allowed if the increased emissions can not be accommodated under the PAL, even if all significant and major emissions units were to meet a BACT level of control.
- Emissions units causing the need for an increase (modified or new units) must go through major NSR.
- New PAL based on sum of:
  - Baseline actual emissions of small emissions units;
  - Baseline actual emissions of significant and major emissions units assuming a BACT level of control; and,
  - Allowable emissions of new or modified emissions units.

# PAL Renewal

- At least **6 months** prior to but not earlier than **18 months** from PAL expiration date, the O/O must submit an application for renewal or expiration.
  - The reviewing authority shall provide a **written rationale** for the proposed PAL level for public comment.
  - The **new PAL level** can not be **higher** than the existing PAL (unless PAL increase provisions are met) or the **PTE** of the source
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## PAL Renewal (Cont...d)

- If baseline actual emissions plus significant level are  $\geq 80\%$  of current PAL, then PAL may be renewed at current level.
- If baseline actual emissions plus significant level are  $< 80\%$  then:
  - PAL may be established at a level that is more representative of baseline actual emissions, or a level that is appropriate based on air quality needs or other considerations.

# PAL Expiration

- Within the timeframe specified for PAL renewals, the source shall **submit a proposed allocation** of the PAL to each emissions unit.
  - The Reviewing Authority shall decide whether and how the PAL will be distributed and **issue a revised permit** incorporating allowable limits for each emissions unit.
  - Any subsequent physical or operational change at the source will be **subject to major NSR review**.
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# PAL Monitoring Requirements

- PAL permit must contain **enforceable requirements** to determine plantwide emissions (12-month total, rolled monthly).
  - A source may use any of the following approaches:
    - Mass balance calculations for activities using solvents or coatings.
    - Continuous Emissions Monitoring Systems (CEMS).
    - Continuous Parameter Monitoring Systems (CPMS) or Predictive Emissions Monitoring Systems (PEMS).
    - Emissions Factors.
  - If no monitoring data exists for an emissions unit for a time period, the source owner must report the **maximum potential emissions** without considering enforceable or operating emissions limitations, unless another method is specified in the permit.
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# PAL Monitoring (Cont..d)

- Where an O/O cannot demonstrate a correlation between the monitored parameter(s) and the PAL pollutant emissions rate at all operating points of an emissions unit, the reviewing authority shall at the time of permit issuance:
    - Establish default value(s) for determining compliance with the PAL based on the highest potential emissions reasonably estimated at such operating points; or
    - Determine that the operation of the emissions unit in the absence of a correlation is a violation of the PAL.
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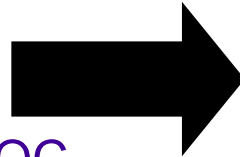
# Recordkeeping/Reporting

- The PAL permit shall require the O/O to maintain the following records for the duration of the PAL effective period plus 5 years:
  - A copy of the PAL permit application and any applications for revisions to the PAL: and
  - Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance.
- The O/O shall submit semi-annual monitoring reports and prompt deviation reports to the Reviewing Authority in accordance with the applicable Title V permitting program.

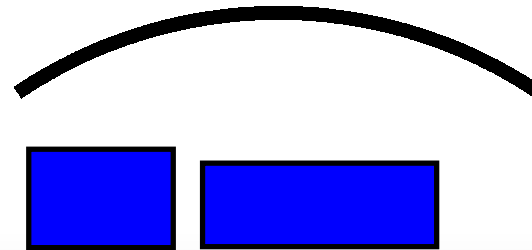
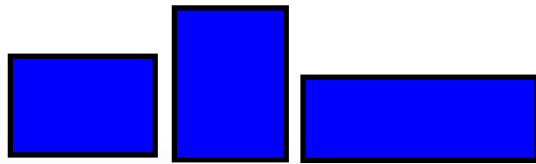
# PAL EXAMPLE

Existing Source:

Actual Emissions= 150 tpy VOC  
Potential Emissions = 400 tpy VOC



Plantwide Limit =  
 $150 + 40 * -50 = 140 \text{ tpy VOC}$



3 units 50 tpy actual emissions each during baseline period. 1 unit shutdown since then. Hence PAL level =  $150 + 40 - 50 = 140 \text{ tpy}$ . Any change not subject to major NSR if plantwide emissions remain below 140 tpy VOC.

\* 40 tpy is significant emissions rate for VOC